

REMARKS

Claims 12-14 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Fuller et al. Applicants respectfully traverse this rejection, because the cited reference does not disclose (or suggest) at least two notch filters that exhibit asymmetrical gain changes on opposite sides of a cutoff frequency thereof.

As described in claim 12, the present invention includes two notch filters 202 and 204 (see Fig. 9) which exhibit asymmetrical gain changes on opposite sides of a cutoff frequency. The frequency characteristics of these filters are shown in Figs. 11A and 12A, respectively, and expressed by

$$G(s) = \left(s^2 + 2D_p Z_i \Omega_c s + \Omega_c^2 \right) / \left(ns^2 + 2Z_i \Omega_c s + \Omega_c^2 \right)$$

where n is not 1.

The Examiner asserts that Fig. 4 of Fuller shows asymmetrical gain changes. However, Fig. 4 of Fuller only shows a combined gain of a plurality of notch filters, and fails to illustrate the gain of a single notch filter. Nothing shown in Fig. 4 thus indicates that any of the notched filters has asymmetry. In fact, every one of the notch filters used by Fuller has a transfer function G(s) in which n = 1 (see col. 5, lines 60-67), which means that each of these notch filters is symmetric rather than asymmetric.

Further, Fuller does not disclose (or suggest) the filter characteristics as set forth in claim 13. The Examiner refers to Fig. 3 of Fuller as disclosing the claimed features of claim 13. Fig. 3, however, merely illustrates a frequency response of the transfer function

of the plant portion 56 shown in Fig. 1 (see col. 5, lines 6-8), and not the filter characteristics of each notch filter.

For all of the above reasons, Applicants request reconsideration and allowance of the claimed invention. The Examiner should contact Applicants' undersigned attorney if a telephone conference would expedite prosecution.

Respectfully submitted,

GREER, BURNS & CRAIN, LTD.

By



B. Joe Kim

Registration No. 41,895

December 21, 2005

Suite 2500
300 South Wacker Drive
Chicago, Illinois 60606
(312) 360-0080
Customer No. 24978
P:\DOCS\0941\70322\9S7176.DOC